

a rinsing unit which performs rinsing of an exposed surface by the etching of the lamination layer including the NiFe or NiFeCo alloy, using a liquid, immediately after the etching; and

a dryer unit which performs drying of the rinsed surface of the lamination layer including the NiFe or NiFeCo alloy immediately after the rinsing thereof, wherein said etching process unit further performs in succession etching of the dried surface of the lamination layer including the NiFe or NiFeCo alloy with a high density gas plasma of a low ion energy under a temperature of the specimen below 200 °C.

2. (Amended) An apparatus for processing a specimen according to claim 1, further comprising:

an atmospheric loader of the specimen laminated on the substrate;

a vacuum transport unit having a vacuum transport robot therein; and

unload and load lock chambers connecting between said atmospheric loader and said vacuum transport chamber for delivering the specimen via an atmospheric transport unit, wherein

said vacuum transport chamber is connected to an etching process chamber of said etching process unit, and

said atmospheric loader is connected via said atmospheric transport unit to at least a rinsing cup and hot plate provided in said rinsing/dryer units.

3. (Amended) An apparatus for processing a specimen according to claim 2, wherein plural etching process chambers are provided in said etching processing unit.